

September 24, 2002

COMMENT

on

Preliminary Finding of No Significant Impact

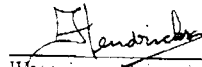
**Infrastructure Improvements Project
for the Luna Hills Neighborhood
in the Village of Los Lunas
located in Valencia County, New Mexico**

EPA Project Number: XP-986793-01-0

Submitted to

Office of Planning and Coordination (6EN-XP)
Attn: Mr. Gregg A. Cooke, Regional Administrator
U.S. Environmental Protection Agency, Region 6
1445 Ross Avenue, Suite 1200
Dallas, TX 75202

I, Jan M.H. Hendrickx, Professional Engineer registered with a BS and MS in Civil Engineering and Irrigation at Wageningen University (The Netherlands), do hereby certify that the following comment was made under my supervision and direction and that same is true and correct to the best of my knowledge and belief.


Wageningen University Ir., NMSC Ph.D.
(Ingenieur or Ir. is the European equivalent of P.E.)

September 24, 2002
Date

**WESTERN HEIGHTS
NEIGHBORHOOD ASSOCIATION**
Engineering Committee
PO Box 897
Los Lunas, NM 87031
Phone: 505-565-9211; Email: JanMHHendrickx@hotmail.com

EXECUTIVE SUMMARY

SEP-20-2002 05:50

- ☐ This comment has been prepared by the Engineering Committee of the Western Heights Neighborhood Association under supervision of Dr. Ir. Jan Hendrickx and has been approved by a General Meeting of the Western Heights Neighborhood Association on Tuesday September 17, 2002.
- ☐ The Western Heights Neighborhood Association strongly disagrees with the preliminary Finding of No Significant Impact pertaining to Luna Hills Infrastructure Improvement Project and respectfully requests a revision of the Environmental Assessment for the following reasons:
 - i) The assessment is not correct. It should be explained unambiguously that the project has been divided in two parts: the North Half and the South Half. Next, it should be clearly stated that regarding the drainage facilities the "New Storm Drains and Pond Improvements" Alternative is preferred for the North Half while the "No Action" Alternative is preferred for the South Half.
 - ii) The South Half is characterized by a steep hill slope of very erosive eolian sand soils. During high intensity storms runoff flows down slope from developed and undeveloped lots. Some of it is captured and channeled into roadways and chutes to retention ponds. Since no systematic drainage conveyance network of bar ditches, curbs, gutters, and chutes is in place the rest of the flood waters flows downward in an uncontrolled fashion. Several chutes have no outlet into retention ponds but discharge into Neighborhood streets. Due to the slopes and the non-cohesive eolian sand soil within the Hillside area, the runoff is highly erosive and can cause **significant damage to the streets and private houses**. The situation will become worse in the future since a 9% increase in runoff is expected after development of all lots. Thus, it is proposed to spend 4.8 million dollars in our Neighborhood for infrastructure improvement without taking care of the most urgent drainage problem faced by the home owners in the South Half.
 - iii) Installation of a gravity sewer collection system on the steep erosive slope of the South Half without protection by a functioning surface drainage system is a serious design flaw by Molzen-Corbin & Associates, the Village Engineer. When uncontrolled runoff water cuts a deep erosion gully on the steep hill slope, the cumulative forces of water, sediment, and debris may very well damage a buried sewer line and cause raw sewage to contaminate a large part of the Neighborhood. The Neighborhood Association does not understand how the U.S. Environmental Protection Agency can arrive at a preliminary Finding of No Significant Impact without addressing this **risk for grave environmental impact**.
- ☐ We strongly reject the response of the Village of Los Lunas to our letters dated November 29, and December 27, 2001, that no drainage improvements will be made in the South

Half due to limited funding. In the appropriated 4.8 million dollars there is sufficient funding to take care of the urgent drainage needs of the North Half as well as the South Half. The Western Heights Neighborhood Association proposes to eliminate non-essential features of the project in order to realize the funding for implementation of proper drainage facilities in the South Half. We can live without a few sidewalks or a smart looking Grant Avenue but we can not live with an ever present risk for neighborhood contamination by raw sewage. We estimate that the necessary drainage facilities in the South Half can be implemented for only a few percent of the total project costs. The total costs for drainage improvement in the South Half are indeed small compared to the cleanup costs after a catastrophic sewer failure.

- ☐ With this Comment the Western Height Neighborhood Association has given notice about the risk for a catastrophic sewer failure in the South Half of the Luna Hills Infrastructure Improvement Project due to a poorly designed surface drainage system on a steep highly erosive hill slope in the South Half. We take this risk very seriously.
- ☐ The Western Heights Neighborhood Association will remain available for constructive collaboration with any person or entity to resolve our drainage problems. We do appreciate the hard work by our representatives in the State Legislature at Santa Fe and in the Congress at Washington D.C. to secure funding for the Luna Hill Infrastructure Improvement Project. We regret any inconvenience we may cause but we have no choice than to protect the environmental quality of our Neighborhood that is put at risk by an engineering design flaw of Molzen-Corbin & Associates. **As taxpayers we deem it unacceptable to have 4.8 million dollars spent on infrastructure improvement in our Neighborhood resulting in a grave risk for environmental contamination with raw sewage and without dealing with the most urgent drainage problem faced by the property owners in the South Half.** We respectfully request that these facts become part of the Environmental Assessment.

TABLE OF CONTENTS

	Page
EXECUTIVE SUMMARY	i
TABLE OF CONTENTS	iii
PURPOSE	1
BACKGROUND	1
WHAT IS WRONG WITH THE ENGINEERING DESIGN?	4
Assessment of Drainage Flow Paths Down the Hill	4
Assessment of Erosive Forces	5
Design of Sewer Collection System	6
WHAT DOES THE NEIGHBORHOOD NEED?	6
Exhibit 1. Erosion gullies on an escarpment West of Sagebrush. These gullies are formed by uncontrolled runoff over the steep slope in the South Half. In the current design by Molzen-Corbin & Associates several sewer lines run parallel to escarpments similar to the one shown on this photo which one day will expose them to the forces of down rolling water, sediment, and debris.	8
Exhibit 2. Another deep erosion gully West of Sagebrush. These gullies are clear evidence that much runoff water is not flowing down along streets and ditches in a controlled way towards the retention ponds as is claimed by Molzen-Corbin & Associates. These gullies are caused by the absence of a well designed storm water runoff drainage system and are very costly to repair by individual home owners. Installation of sewer lines in these erosive conditions without protection by a well designed drainage system creates a serious risk for contamination of our Neighborhood by raw sewage.	9

- Exhibit 3.** A starting erosion gully in the backyard of Valley View 1113 after the big storm in August 1999. The Hendrickx family had to spend almost one thousand dollar to fix the damage not including two weeks of their own labor. The water causing the damage had entered his property from the public street. This picture has been taken from a video which has deteriorated its quality 10
- Exhibit 4.** A statement by property owner Karla McCall complaining about erosion caused by runoff water entering her property from the public street. 11
- Exhibit 5.** A statement by property owner Don I Spiers who has sustained serious flood damage on five occasions by runoff water entering from the public street. 12
- Exhibit 6.** A view of Valley View during a small storm event on September 10, 2002. There are no curbs or gutters along this street; runoff water can jump downhill (to the left) when runoff increases during larger storm events. Such an event caused the property damage referred to in Exhibits 3-5. 13
- Exhibit 7.** A drainage outlet into a public street. Such an outlet is fine during small precipitation events but will put the house at risk during an extreme storm runoff event. The Neighborhood has several of these drainage outlets which are the results of ad-hoc planning without thought for the overall solution of the drainage problem in the South Half. 14
- Exhibit 8.** Drainage ditch South of Valley View 1117. This ditch consists of cement slapped onto an earthen ditch without energy dissipation measures. Its poor construction will require frequent maintenance or result in erosion exactly where a main sewer line has been planned. 15

PURPOSE

The purpose of this comment is to express the strong disagreement of the Western Heights Neighborhood Association with the preliminary Finding of No Significant Impact pertaining to the Luna Hills Infrastructure Improvement Project. We cannot accept that 4.8 million dollars will be spent on infrastructure improvement in our Neighborhood resulting in a serious risk for environmental contamination with raw sewage and without dealing with the most urgent drainage problem faced by the property owners in the South Half. We respectfully request a revision of the proposed engineering works, the complete elimination of the environmental risk to our Neighborhood, and an improved drainage system to safely dispose of storm runoff.

BACKGROUND

In addition to the section "Background" of the Environmental Assessment prepared by the U.S. Environmental Protection Agency, Region 6, we like to add the following information.

Relation between the Administration of the Village of Los Lunas and its Citizens. The proposed project is in the Luna Hills Neighborhood located within the corporate limits of the Village. The North Half of the Neighborhood was annexed in 1976 by the Village, and the South Half was annexed in 1982. Although the home owners have been paying property taxes since their annexation, little has been done to improve the infrastructure in the Neighborhood. One important reason for this is that Mayor Louis F. Huning took office in 1982. Since he is also an important partner in the Huning Livestock company, one of the largest landowners within Village limits, his attention has been almost entirely focused on infrastructure improvements that would increase the value of Huning land holdings. While the richness of Huning land holdings

increased steadily, the poor sanitary and drainage conditions in our Neighborhood have been neglected for almost twenty years despite repeated requests for improvement by the property owners. Today the relationship between the Huning Village Administration and Western Heights Neighborhood Association is less than ideal. At one point we have been charged one dollar a page to copy the reports necessary to prepare this Comment. Never ever has the Village Engineer, Molzen-Corbin & Associates, offered us courtesy copies of their reports: a small cost compared to the lucrative Village contracts obtained during so many years. The Village and the Village Engineer never have been open for our suggestions and comments and the representatives of the Western Heights Neighborhood Association have been snubbed numerous times. This lack of communication with the citizens of Los Lunas and the secrecy necessary to hide all actions undertaken to the benefit of Huning land holdings has -among other things- resulted in a poorly designed drainage system that one day may cause a major catastrophe in our Neighborhood.

Physical Environment. The critical nature of the physical environment of our Neighborhood has been best described by the Village Engineer, Molzen-Corbin & Associates, who writes in his report *Hillside Infrastructure* (August 1992) that "*Due to the slopes within the Hillside area, the runoff is highly erosive and can cause significant damage to the streets and private houses.*" Therefore, the Village of Los Lunas has identified as its primary goal for storm water management in the Luna Hills: "*Providing all residents with a safe drainage system*". Having seen the damage in the Neighborhood after storms in the past many neighbors concur with this risk assessment of the Village Engineer (see Exhibits 1-5) and support the Village's goal for storm water management.

In August 2001, the Village Engineer has changed his mind about the risks we are facing for significant damage to our property. In his draft report "*Facilities Plan & Environmental Information Document for Luna Hills Infrastructure Improvements*" it is stated that "*Storm runoff sheet flows down slope and is captured and channeled in ditches along the roadways to four existing retention ponds. The south half [of Luna Hill] utilizes street flow and concrete rundowns to direct runoff to [retention] ponds*". This statement is incorrect and misleading.

Many of the streets have no curbs and gutters or ditches to guide the runoff water (Exhibit 6). Since no curbs or gutters are planned for the infrastructure improvement much of the runoff will continue to flow down the steep erosive hill slope. At several occasions the Western Heights Neighborhood Association has requested Molzen-Corbin & Associates to explain their technical rationale for this change of mind. Each time we were brushed away in an arrogant manner because there are no technical engineering arguments.

A true reflection of our drainage condition is as follows: *"In the south half of Luna Hill storm runoff sheet flows down slope from developed and undeveloped lots. Some of it is captured and channeled into roadways and chutes to retention ponds. Since no systematic drainage conveyance network of bar ditches, curbs, gutters, and chutes is in place the rest of the flood waters flows downward in an uncontrolled fashion. Several chutes have no outlet into retention ponds but discharge into neighborhood streets (Exhibit 7). Due to the slopes within the Hillside area, the runoff is highly erosive and can cause **significant damage to the streets and private houses**. The situation will become worse in the future since a 9% increase in runoff is expected after development of all lots."*

Basically all properties located on the lower part of the hill are at risk for damage. Since the drainage waters rush down the hill in an uncontrolled fashion, it is difficult to predict which property is at the greatest risk. Even neighbors living on top of the hill are at risk. At one Public Information Meeting we were told by the Village Engineer that individual home owners who protect their property by installing flood protection measures (such as diversion drains or dikes), will be liable for flood damages to downhill properties. We were also told that surface drainage measures are the responsibility of individual homeowners. We do strongly disagree with this statement. Effective flood protection measures in our Neighborhood can only be put in place by the Village. The measures taken by individual homeowners have resulted in rather dangerous situations for several houses down hill.

WHAT IS WRONG WITH THE ENGINEERING DESIGN?

SEP-30-2002 06:55

The proposed engineering design for the South Half of the Neighborhood has several flaws: poor assessment of drainage flow paths down the hill, ignoring of erosive forces on the hill, putting sewer lines close the erosive escarpments.

Assessment of Drainage Flow Paths Down the Hill

The assumed current conditions of drainage flow paths are described in section 3.2 of the "Drainage Report. Luna Hills Infrastructure Improvement" of February 2002 by Molzen-Corbin & Associates. Figure 3.2 of this report presents the assumed flow paths of runoff water and the peak storm runoff during a six hour storm with return period of 100 years. The report is very short on the flow paths of the runoff water down the hill. It suggests that the water is running down through "a series of concrete and earthen ditches running west to east between the north-south roadways". It ignores completely the information that has been conveyed by the Neighborhood to the Village as well as to Molzen-Corbin during Public Meetings and in writing. Since there are no curbs or gutters along Crest View and Valley View (Exhibit 6) runoff water does not necessarily go to the few concrete and earthen ditches that have been put in place haphazardly over the years. Much of the water takes the path of least resistance and flows from public streets through private properties downhill. Especially, during major storms there is no way to predict what course the runoff waters will take and the Neighborhood becomes one big mess (Exhibits 3-5). For example, the peak flows from sub-basins D-20, D-30, and part of C-40 and E-20 do not flow downhill in a controlled manner through concrete and earth ditches during big storms. Most of this flow totaling tens of cfs enters the properties at Valley View 1113 and 1117 (Exhibit 3) from where it discharges into property at 1265 Sagebrush (Exhibit 5) causing much damage.

Figure 3-3 in the Drainage Report by Molzen-Corbin & Associates clearly demonstrates

the erratic nature of the existing drainage network. Only one of the four concrete ditches shown discharges into a pond. Ditch 2 and 4 have been constructed in a sloppy manner without any engineering input (Exhibit 8). Nothing is mentioned about the measures taken by individual home owners to discharge drainage waters downhill without any planning or coordination. The overall result is a runoff pattern where drainage flows are concentrated at unknown locations and cause much damage to down hill properties. It is a major omission by Molzen-Corbin & Associates not to recognize this dangerous situation in their report. The one big NO-NO in drainage engineering is to let water flow without knowing where it will discharge.

We don't understand how the Village can spend 4.8 million dollars without taking care of this bad situation. The Western Heights Neighborhood Association demands that these facts become part of the Environmental Assessment; we also demand an explanation how so much taxpayer's money can be spent without resolving our most urgent drainage problem in the South Half.

Assessment of Erosive Forces

Molzen-Corbin & Associates state in the report *Hillside Infrastructure* (August 1992) that "Due to the slopes within the Hillside area, the runoff is highly erosive and can cause **significant damage to the streets and private houses.**" However, in August 2001, they have changed their mind about the risks we are facing for significant damage to our property. In the report "Facilities Plan & Environmental Information Document for Luna Hills Infrastructure Improvements" it is stated that "Storm runoff sheet flows down slope and is captured and channeled in ditches along the roadways to four existing retention ponds. The south half [of Luna Hill] utilizes street flow and concrete rundowns to direct runoff to [retention] ponds". No technical arguments were ever given to defend this change of mind. Exhibits 1-3 clearly show that the erosion problem still does exist. The Western Heights Neighborhood Association has pointed out on several occasions that we do have a severe erosion problem that needs to be taken care off by an improved surface drainage system.

It is the second major omission by Molzen-Corbin & Associates not to recognize the erosive forces on the steep eolian sand hill of the South Half. Many engineering constructions

21.12
have been lost by not taking into account the erosive force of water. The purpose of this report is
to prevent catastrophic damage to the new sewage system.

Design of Sewer Collection System

Many accidents happen when a number of relatively minor mistakes compound. In the case of the sewer collection system we have already shown that Molzen-Corbin & Associates are ignoring (i) the unpredictable pathways of large peak runoff flows during major storm events in the South Half as well as (ii) the erosive force of water on the steep eolian sand slope of the South Half. In addition, they have located several sewage lines only a few meters uphill from escarpments similar to the one shown in Exhibit 1. The compounding effect of these three factors form a real risk for a catastrophic sewer line failure on the steep slope in the South Half which will result in contamination of a large part of our Neighborhood with raw sewage.

WHAT DOES THE NEIGHBORHOOD NEED?

The Western Heights Neighborhood Association respectfully requests that the following actions are being undertaken by the U.S. Environmental Protection Agency in order to protect our Neighborhood from the risk of contamination by raw sewage and from the continuous damage to our properties by storm water runoff:

1. Acknowledge the true nature of the surface drainage conditions in the South Half during major storms. State what the problems are and what needs to be done to fix those. Make a clear distinction between the North and South Halves of the Neighborhood to explain to the public what the environmental risks are. Even if this will not lead to a better drainage system now, at least we leave the door open to secure more funding in the future to fix our storm water drainage system.
2. Assess the true environmental risks in your Environmental Assessment. Nowhere it is

- Exhibit 1. Erosion gullies on an escarpment West of Sagebrush. These gullies are formed by uncontrolled runoff over the steep slope in the South Half. In the current design by Molzen-Corbin & Associates several sewer lines run parallel to escarpments similar to the one shown on this photo which one day will expose them to the forces of down rolling water, sediment, and debris.



Exhibit 2.

Another deep erosion gully West of Sagebrush. These gullies are clear evidence that much runoff water is not flowing down along streets and ditches in a controlled way towards the retention ponds as is claimed by Molzen-Corbin & Associates. These gullies are caused by the absence of a well designed storm water runoff drainage system and are very costly to repair by individual home owners. Installation of sewer lines in these erosive conditions without protection by a well designed drainage system creates a serious risk for contamination of our Neighborhood by raw sewage.

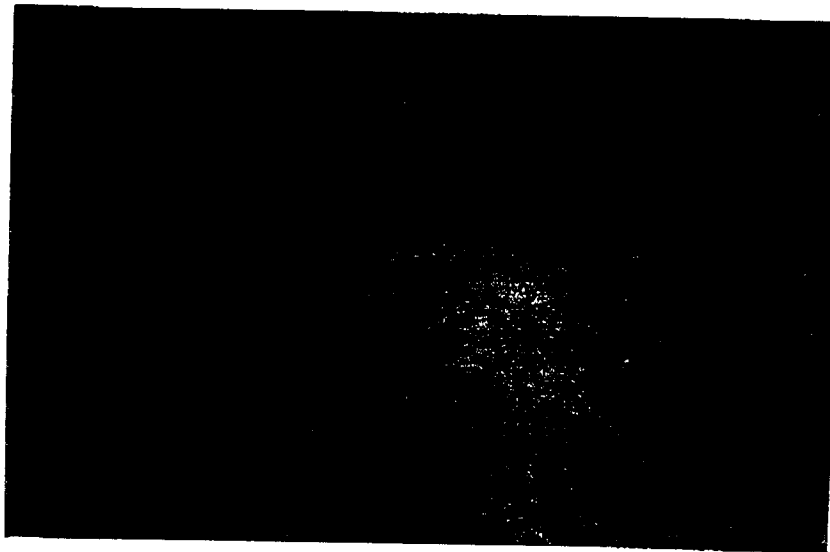


Exhibit 3. A starting erosion gully in the backyard of Valley View 1113 after the big storm in August 1999. The Hendrickx family had to spend almost one thousand dollar to fix the damage not including two weeks of their own labor. The water causing the damage had entered his property from the public street. This picture has been taken from a video which has deteriorated its quality.



Exhibit 4. A statement by property owner Karla McCall complaining about erosion caused by runoff water entering her property from the public street.

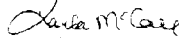
November 20, 2001

To Whom It May Concern:

We recently purchased the property located at 1315 Sagebrush Dr. SW. The erosion that has occurred, prior to our purchasing the property, on the southwest side of the property is extensive as you can see by the enclosed pictures. There is no way the amount of erosion that has taken place was caused by water run off from only our property. It is quite clear the problem begins uphill from our property. We would like to have the problem investigated and erosion control put in place so to avoid any future problems with both our land and the property which lies beneath us on Bluffside Ct.

I would appreciate any investigation and would like to know the outcome. Our home phone number is 865-6218.

Sincerely,



Karla McCall
1315 Sagebrush SW

Exhibit 5. A statement by property owner Don J. Spiers who has sustained serious flood damage on five occasions by runoff water entering from the public street.

Los Lunas Village Mayor and
Los Lunas Village Council

I am very concerned about the serious lack of drainage control in the South Luna Hills area. We have lived in this area, on Sagebrush Drive, for the past eight plus years. During that period of time, our property has sustained serious flood damage on five separate occasions. Serious flooding occurs whenever a downpour approaches or exceeds two (2) inches of rainfall within a short period of time.

Contrary to Councilor Valpender's opinion to the effect that we have NO problem, because the Village Engineers have said so, I can state categorically, that we DO have a serious, on going, problem, which will not go away until a proper system for drainage is established.

I direct the Village Engineers attention to the fact that the Southwest quadrant of the subdivision, bounded by Hillside Blvd. on the North, Valleyview Dr. on the East and Crestview Dr. on the West, has no curbs, gutters, or sidewalks to direct runoff into the three or four existing drainage chutes. In addition, there are several vacant unimproved lots on the East facing slope of the hill. All of the above factors contribute to the uncontrolled flooding which occurs when significant rainfall is experienced. The lots, such as mine, which border on the southwest quadrant, take the brunt of the damage on each occasion.

The Village Administration has continued to ignore our plight, while championing the plight of the Homeowners to the Northern portion of the development. This bias continues in spite of the fact we paid our area improvements, such as paved streets, gutters, and underground stubbers. Because our area has these upgraded facilities, you have assessed our property at a higher taxable value. In other words, we paid our way, whereas, other parts of the development did not. Now, we are being taxed to help pay for their improvements, yet you refuse to consider helping us protect our property from flooding?

It seems to me that the current project, to upgrade the Luna Hills area, could be extended to cover the entire area, simply by assessing ALL of the property owners in the AREAS to be improved. In this way you could acquire the necessary additional funds to cover the entire area.

Thank you for your consideration.

Don J. Spiers
Don J. Spiers

OK 866-5122

→ Copy to: Hendricks

→ Copy to: Village Bulletin

6T10

Exhibit 6.

10:00 2002-09-10-JES
A view of Valley View during a small storm event on September 10, 2002. There are no curbs or gutters along this street; runoff water can jump downhill (to the left) when runoff increases during larger storm events. Such an event caused the property damage referred to in Exhibits 3-5.



0010

Exhibit 7.

A drainage outlet into a public street. Such an outlet is fine during small precipitation events but will put the house at risk during an extreme storm runoff event. The Neighborhood has several of these drainage outlets which are the results of ad-hoc planning without thought for the overall solution of the drainage problem in the South Half.

0010 0000-00-000



0010 0000-00-000

0010 0000-00-000

- Exhibit 3. Drainage ditch South of Valley View 1117. This ditch consists of cement slapped onto an earthen ditch without energy dissipation measures. Its poor construction will require frequent maintenance or result in erosion exactly where a main sewer line has been planned.

